

## GLOSSARY OF TECHNICAL TERMS IN THE EVERGLADES CONSOLIDATED REPORT

**Adverse Impact:** The detrimental effect of an environmental change relative to desired or baseline conditions.

**Accretion:** The gradual addition of new material on top of older sediments or soils.

**Accuracy:** The closeness of a measured value to the true value (as opposed to precision).

**Acre-foot:** The volume of liquid required to cover one acre to a depth of one foot.

**Agricultural Privilege Tax:** An annual tax levied on farming activities in the EAA and C-139 basins to support Phase 1 of the Everglades restoration.

**Analyte:** A chemical species measured in a water sample.

**Apple Snails:** The Florida Apple Snail (*Pomacea paludosa*) is a gastropod mollusk found commonly in shallow wetland environments in South Florida. It is the primary food of the endangered Everglades Snail Kite.

**Aquifer:** A porous layer in the ground where water can be stored.

**Baseline Period:** A specified period of time during which collected data are used for comparisons with future data.

**Benthic:** Bottom dwelling organisms (e.g., benthic insects).

**Best Management Practices:** Land, industrial and waste management techniques that reduce pollutant loading from an industry or land use.

**Biogeochemistry:** The study of the form, fate and movement of elements through biological, geological and chemical materials.

**Biomass:** The weight of living material, usually as dry mass.

**Bulk density:** The mass of soil in a given volume.

**Chlorophyll:** Green pigments found in plants and essential for photosynthesis.

**Conductance:** The ability of an aqueous solution to carry an electric current; used as a measure of total dissolved solids.

**Decomposition:** The action of microorganisms causing the breakdown of organic compounds into simpler ones and the release of energy.

**Discharge:** The rate of water movement, as volume per unit time (cubic feet per second).

**Dissolved organic carbon:** The organic fraction of carbon in water that is dissolved (not filterable).

**Emergent macrophytes:** Rooted vascular plants in inundated areas that extend above the water surface.

**Eutrophication:** The natural or cultural enrichment of an aquatic environment with

plant nutrients leading to rapid ecological changes and high productivity (adj. eutrophic).

**Evapotranspiration:** The process by which water is released to the atmosphere by evaporation from the water surface or movement from a vegetated surface (transpiration).

**Everglades Stormwater Program:** A program to ensure that water quality standards are met at all structures not included in the Everglades Construction Permit.

**Everglades Trust Fund:** A fund created by the law (Ch.97-258) to support ecosystem restoration.

**Excursion in water quality data:** A constituent concentration that is of potential concern as an apparent violation of a water quality criterion. ‘Excursion’ indicates some uncertainty in the interpretation of the reported value that must be evaluated by examination of background conditions, ancillary data, quality assurance and historic data before the datum is considered an exceedance or ‘violation’ of a water quality criterion. DEP is responsible for data review to determine violations of water quality criteria and standards.

**Exotic or Invasive Species:** Exotic species are kinds of plants and animals not normally found in an area. Often such species are highly invasive and dominating to native forms. Examples of exotic species in South Florida include cichlid fishes, melaleuca trees, Brazilian pepper, Australian pine and torpedo grass.

**Flow-Weighted Mean Concentration:** The average concentration of a substance in water corrected for the volume of water flow at the time of sampling; samples taken when flow is high are given greater weight in the average,

and flow-weighted concentrations can be used to calculate mass loading at a particular location.

**Hectare:** A unit of measure in the metric system equal to 10,000 square meters (2.47 acres).

**Hydraulic residence time:** The length of time that water resides in a body of water or specified area.

**Hydropattern:** Water depth and duration, along with the quantity, timing and distribution of surface water to a specific area; critical for maintaining various ecological communities in wetlands.

**Hydroperiod:** Depth and duration of inundation in a particular wetland area.

**Invertebrates:** Small animals, such as insects, crayfish, mollusks, and annelids, that do not have a backbone. These animals are often important components of ecosystem food webs and can be indicators of ecosystem status.

**Loading (Mass loading):** The mass of a material entering an area per unit time (e.g., phosphorus loading into Water Conservation Area 2A as metric tons per year).

**Macrophytes:** Visible plants found in aquatic environments; sawgrass, cattails, sedges and lilies are examples of macrophytes.

**Minimum Flow and Level:** Florida Statute requires water management districts to set water levels for each major body of water “at which further withdrawals would be significantly harmful to the water resources or ecology of the area....”

**Moving average:** The arithmetic average of a sequence of data within a data set moved and calculated sequentially to smooth the data and reveal trends (e.g., 12-month moving average TP concentration).

**Muck soil:** Dark, organic soil derived from the decay of plant biomass.

**Nutrients:** Elements essential as raw materials for the growth of an organism. For aquatic environments, nitrogen and phosphorus are important as nutrients affecting the growth rate of plants.

**Oligotrophic:** Refers to an environment low in plant nutrients and productivity; unenriched.

**Parameter:** A variable or constant representing a characteristic of interest, e.g., conductance is a water quality parameter. Usage of this term is highly subjective and varies greatly across disciplines.

**Periphyton:** The biological community of microscopic plants and animals attached to surfaces in aquatic environments. Algae are the primary component in these assemblages and periphyton can be very important in aquatic food webs, such as those of the Everglades.

**Parts per billion:** ppb, equivalent to one microgram per liter.

**Parts per million:** ppm, equivalent to one milligram per liter.

**Phosphorus:** An element that is essential for life and limits the growth of plants in the Everglades ecosystem.

**Precision:** The reproducibility of measurements (low precision yields high scatter in data).

**Pyropattern:** The extent and frequency of fires across a landscape.

**Quality assurance:** A program to provide a means for a product to meet a defined set of quality standards at a specified level of confidence.

**Quality control:** Steps to ensure that quality standards are met.

**Sheet flow:** Water movement as a broad front with shallow, uniform depth.

**Species richness:** The number of species occurring in a particular area for a specified sampling period.

**Parts per billion:** ppb, equivalent to one microgram per liter.

**Parts per million:** ppm, equivalent to one milligram per liter.

**Regulatory Action Strategy:** A suite of projects and programs being developed to address water quality concerns for structures outside the Everglades Construction Project permit.

**Scientifically Defensible:** Information that is supportable using accepted scientific methods of data collection and analysis.

**Soil or peat subsidence:** The loss of organic soil and associated elevation due to decomposition, compaction and burning. This process occurs at a high rate when peat soils of the Everglades region are drained.

**Standards:** Accepted or legally mandated measures for comparison of quantitative or qualitative values. State water quality standards are composed of the beneficial use classification, numerical criteria applicable to the classification, the Florida antidegradation policy and several provisions in other rules.

**Supplemental Technologies:** Advanced wastewater treatment techniques that have the potential to supplement STAs and reduce phosphorus to levels of about 10 ppb.

**Total Maximum Daily Load:** The level of loading to a body of water that will protect uses and maintain compliance with water quality standards (defined in Clean Water Act).

**Trophic level:** Groups of organisms using or producing energy at a definable level in nature. Plants are lowest trophic level and are the primary producers of biological energy. Grazing and detritus feeding animals are intermediate,

and predators, such as bass, wading birds and raccoons, are in the higher trophic level. Metals like mercury accumulate at higher trophic levels, while most energy in nature is stored in lower trophic levels.

**Water quality criteria:** Constituent concentrations, levels or narrative statements representing a quality of water that supports the most beneficial use of the resource.

**Water Preserve Areas:** Multi-purpose water holding areas located along the western border of the urbanized corridor in south Florida.

**Water quality standard:** Standards are composed of the most beneficial use of water, water quality criteria applied to that use, and the Florida antidegradation.